#### DOCUMENT RESUME

ED 234 700

HE 016 626

AUTHOR TITLE Kapsis, Robert E.; Protash, William

Summer Motivation and Retention. Fall 1978 Freshman

Cohort Study: Report No. 1.

INSTITUTION

City Univ. of New York, NY. Office of institutional

Research and Analysis.

PUB\_DATE

83 47p.

PUB TYPE

Reports - Research/Technical (143)

EDRS PRICE DESCRIPTORS MF01/PC02 Plus Postage.

Academic Achievement; \*Academic Persistence; College

Attendance; \*College Students; Dropout Research;

Dropouts; Economically Disadvantaged; \*Educationally Disadvantaged; \*Enrollment Trends; Higher Education;

Institutional Research; Longitudinal Studies;

\*Student Attrition; \*Summer Schools

IDENTIFIERS

\*City University of New York

#### ABSTRACT

The influence of summer experiences on the re-enrollment pattern of students at the City University of New York was studied. Students who began as first-time freshmen in fall 1978 were evaluated over a 2-year period. Information was available for 21,079 students; however, 1,466 students who completed associate degrees during the study period were excluded from the analysis. Major study findings were as follows: during the summer, economically and educationally disadvantaged students were more likely to drop out of college than were advantaged students; during the school year, advantaged and disadvantaged students had an equal chance of remaining in college; the summer is particularly crucial for academically underprepared students, who are nearly twice as likely as other students to drop out over the summer; attendance at summer school largely offsets the influence of disadvantage on re-enrollment behavior; precollege economic deprivation alone was nearly unrelated to dropping out, while precollege academic disadvantage alone or in combination with economic disadvantage, was strongly related to leaving college; and academically disadvantaged students were about three times more dependent upon their grade performance for retention than were others. (SW)

\* Reproductions supplied by EDRS are the best that can be made

from the original document.



## THE CITY UNIVERSITY OF NEW YORK

#### BOARD OF TRUSTEES

James P. Murphy, Chairperson Edith B: Everett, Vice Chairperson

Paul P. Baard
Blanche Bernstein
Sylvia Bloom
James Cavanagh
Armand D'Angelo
Judah Gribetz
Harold M. Jacobs
Jules Kölodny
Melvin E. Lowe (Chairperson, University Student Senate)
Albeit V. Maniscalco
Robert L. Polk
Joaquin Rivera
Margaret Titone
Henry Wasser (Chairperson, University Faculty Senate)

Joseph S: Murphy, Chancellor

#### THE COLLEGES

Baruch College-Joel Segall, President Borough of Manhattan Community College-Joshua L. Smith, President Bronx Community College—Roscoe C. Brown, Jr., President Brooklyn-College-Robert L. Hess, President City College—Bernard W. Harleston, President City University School of Law at Queens College-Charles R. Halpern, Dean Graduate School and University Center-Harold M. Proshansky, President Hostos Community College-Flora Mancuso Edwards, President Hunter College-Donna E. Shalala, President John Jay College of Criminal Justice—Gerald W. Lynch, President Kingsborough Community College-Leon M. Goldstein, President LaGuardia Community College-Joseph Shenker, President. Lehman College-Leonard Lief, President Medgar Evers College-Denis F. Paul, Acting President Mount Sinai School of Medicine (affiliated)—James F. Glenn, President New York City Technical College—Ursula C. Schwerin, President Queens College-Saul B. Cohen, President Queensborough Community College-Kurt R. Schmeller, President The College of Staten Island—Edmond E. Volpe, President York College-Milton G. Bassin, President



Summer Motivation and Retention

by

Robert E. Kapsis
Department of Sociology
Queens College

William Protash
Office of Institutional Research and Analysis



### CONTENTS

	Page
Preface	iii
Summary	v V
Introduction	1
Data Methods	8
Results	ī 2
Conclusion	$\bar{2}\bar{0}$
Bibliography	22
Tables::::::::::::::::::::::::::::::::::::	23



#### PREFACE

The following report describes the influence of summer experiences on the re-enrollment pattern of students at The City University. It traces the experiences of students who began as first-time freshmen in Fail 1978 and follows them over a two-year period. The authors report that the summer months are crucial to the educational progress of disadvantaged students. By implication college based summer programs might serve to mitigate the influence of poor academic preparation on ultimate educational attainment.

"Summer Motivation and Retention", as the report is titled, is the first in a series of reports to be published as part of a long-term follow-up study of students who entered The City University of New York in the Fall of 1978. Robert Kapsis, the senior author, is a Professor of Sociology at Queens College. He has served as a consultant on the study almost from the start, with specific re-ponsibility for analyzing program effects on student outcomes. In preparing this report, Professor Kapsis was joined by Mr. William Protash a researcher in The University's



The 1978 Freshman Cohort study is a joint effort of the Office of Institutional Research and Analysis and the Office of Academic Affairs. It has been partially funded through a sepa: te budget allocation for research on the SEEK program.

Barry Kaufman University Dean Office of Institutional Research

Michael Ribaudo University Associate Dean Office of Academic Affairs

James Murtha Director of Analytical Studies Office of Institutional Research



#### SUMMARY

This study presents an exploratory analysis of summer experiences and educational commitment among undergraduate students at The City University of New York. Our results suggest that among disadvantaged students, particularly those performing poorly in college, pressures to drop out of school become strongest during the summer months when most students are out of school. By contrast, among more advantaged students, their out of school summer experiences, because they are educationally more diverse, serve to reinforce their commitment to schooling. The study's major findings are:

- During the summer economically and educationally disadvantaged students are more likely to drop out of college than advantaged students. However, during the school year (i.e., between fall and spring semesters) advantaged and disadvantaged students have an equal chance of remaining in college.
- The summer period is particularly crucial for students



suggesting that summer learning may be important in reducing the effects of prior disadvantage.

Specifically, among students who attend summer school; fall re-enrollment occurs at nearly identical rates for advantaged and disadvantaged students: 93% of the most advantaged and 89% of the least advantaged enroll for their fifth college semester after attending summer school for two years in a row.

- Pre-college economic deprivation alone is nearly unrelated to dropping out while pre-college academic disadvantage alone or in combination with economic disadvantage, is strongly related to leaving college.
- Academically disadvantaged students are approximately three times more dependent upon their grade performance for retention than others. For the academically underprepared, grades are strongly related to retention; for those better prepared for college, grades make much less of a difference. Poor grade performance is particularly influential for the fall



The findings from this study along with earlier reports on the SEEK Pre-Freshmen Summer Program at The City University suggest that summer education might strengthen students' commitment to education, thereby reducing the effects of prior disadvantage.



#### INTRODUCTION

A recurrent theme in research on inequality is the relative importance of education and family background in the achievement of children. Against the background of Lyndon Johnson's Great Society program of the early 1960s, it was widely believed that the way to improve the life chances of the poor was to increase their opportunities for education. Thus emerged the assumption that remedial and compensatory programs at all levels of schooling would serve to offset the educational disadvantages of the poor.

Beginning with the survey conducted for Equality of
Educational Opportunity (Coleman et al., 1966), evidence started
to accumulate that the impact of family background far outweighed
the differences between schools and between educational programs
on student achievement. Despite impressive evidence to the
contrary (e.g., Jencks, et al. 1972), most educators still
believe that schooling has a substantial impact on cognitive
development but recognize that the effect of schooling is
difficult if not impossible to measure. They reason that "most



when most students are not in school (and schools could have no effects) and when family influences could be strongest. In Heyns' orientation the influence of family is continuous throughout the year, whereas that of the school is intermittent in that most students are not enrolled in school during the summer. In her analysis of sixth and seventh grade students in Atlanta, Georgia, Heyns found that during the summer months (spring to fall), family economic status and race, independent of individual differences in achievement, became substantially more important as determinants of cognitive growth than during the school year (fall to spring). According to Heyns:

School does not equalize outcomes in any absolute sense; during both the school year and the summer, relatively advantaged students learn at a faster rate than do less privileged pupils: Disadvantaged childrer, however, show a higher rate of relative achievement during the school years than during the summer. The gap between black and white children, and between low- and high-income children widens\_disproportionately during the months when schools are not in session. Schooling apparently attenuates the influence of socioeconomic status on achievement and thereby reduces the direct dependence of outcomes on family background. The effect is common to every skill or subject tested for either racial group and persists irrespective of other controls (Hēyns, 1978: 187).



School and Beyond," sponsored by the National Center for Education Statistics) are examining the impact of higher education on cognitive growth: 'Our report is the first to apply the Heyns perspective to the issue of college retention.

In view of the prospect of declining enrollments throughout the 1980s, increasing attention has been placed on efforts to keep students in college as is evident from the large number of studies on this subject published recently (Lenning, Sauer, and Peal, 1980: 1). While several studies have focused on the practical application of retention strategies and their effectiveness in lowering the college drop-out rate, to our knowledge, none has explored the possible effect of summer school attendance in raising retention rates, especially among educationally and economically disadvantaged students.

We explore this issue for a recent freshmen cohort at The City University of New York. The City University is the third largest university in the United States, enrolling approximately 176,000 students, most of whom come from the five boroughs of New York City. As an open access institution, The City University



Following Heyns, we expect differences in the retention rates of advantaged and disadvantaged students to widen at a greater rate between the spring and fall semesters than during the school year. Family and peer pressures have a greater adverse effect on disadvantaged students during the summer than between the fall and spring semesters when schooling to a great extent should attenuate the influence of family and peers on retention. Among disadvantaged students, particularly those performing poorly in college, family and peer pressures to drop out of school are strongest and most effective during the summer months when the vast majority of college students are out of school (cf. Iffert, 1957; Barger and Hall, 1964). By contrast, among more advantaged students, their out of school summer experiences should reinforce their commitment to schooling. indeed, advantaged students can better afford the luxury of doing poorly during their first two years in college and yet remain committed to completing school than can disadvantaged students who are inclined to interpret their poor college performance as confirmation that they are cognitively ill-equipped for college and, therefore, owe it to their families to drop out and secure a full-time job. Peer pressures may also force disadvantaged



re-enrollment, that is, a correlation analogous to the low association between level of disadvantage and spring retention we hypothesized earlier for students enrolled the previous fall. This argument assumes that summer school attendance is effective in raising retention rates and that the effectiveness of summer school is a product of not only improving the cognitive skills of participants but also in strengthening their commitment to education against countervailing pressures from peers and family.

In this paper, we will distinguish between two types of pre-college deprivations — economic and educational — and examine how they independently and conjointly influence college retention rates over several semesters. One would expect college students from low-income family backgrounds to feel pressures from their families to drop out of college and secure a job, especially if they are performing poorly in school. However, high academic achievers from economically impoverished backgrounds should also feel these pressures. Accordingly, they would be expected to drop out at a higher rate, especially during the summer, than their counterparts among more affluent students. To test this strictly economic argument, we will use information



students brought up by parents who are committed to education and to diverse cosmopolitan experiences are "more educationally advantaged" than students exposed to the usual localized social activities commonly associated with socially and culturally deprived backgrounds.

Heyns, for example, reports that rich children learned at the same rate during the summer as they did during the school year. Moreover, she uncovered three experiences that correlated significantly with summer learning == (1) students who attended summer school a greater distance from their own home than their usual neighborhood school learned more than those who attended summer school in the local program; (2) children who went on trips away from home (c specially those permitted to travel alone) learned more; and (3) children who owned bicycles learned more. As Pandall Collins (1981) has astutely observed, all three correlates of summer learning in the Heyns' study are indicators of "diverse/cosmopolitan social experiences in contrast to the usual localized social routine of working class children. Since middle class children's lives are usually more cosmopolitan and diverse than working class children's lives, middle class



In the present study, high school academic average is employed as a proxy for such pre-college educational disadvantages. Several studies (e.g., Wilensky, 1964) suggest that parental commitment to education and other diverse cosmopolitan learning experiences are powerful predictors of subsequent school performance among offspring. While more direct measures of parental outlook would be preferable here, we believe that high school average will roughly differentiate students exposed to diverse learning experiences from those who are not.

#### DATA AND METRODS

analyzed longitudinal data spanning two and one half years on all students who enrolled at the senior (Bachelor degree programs) and community colleges (Associate degree programs) of The City University of New York as full-time freshmen in the Fall of 1978. Complete information was available for 21,079 students. We eliminated from the analysis all those who earned degrees within the period under study, since our major dependent variable was retention rates. This group consisted almost entirely of Assoc: e degree recipients who finished in the conventional two year period (N=1466):\*

The City University of New York is made up of eight senior colleges and nine community colleges. Admission to most of the senior colleges requires having an academic high school average of 80 or ranking in the top third of one's high school class. To gain admission to any of the community colleges, applicants need only have a high school diploma or equivalency. In addition to these basic admissions criteria, The City University admits



Knowledge) at the senior colleges, College Discovery at the community colleges. These programs were instituted during the mid 1960's prior to the beginning of The City University's open admissions policy as a way of providing college access to disadvantaged students. Special program students are by definition disadvantaged -- both academically and economically == and are therefore a natural group for which to test summer school As a result of the open admissions policy which began in 1970 and was modified in 1976, a considerable number of academically underprepared and/or economically disadvantaged students gain admission to senior or community colleges as regular program students, thus providing more cases to test the hypotheses: 'Academically disadvantaged regular senior college students are mainly those who do not have an 80 high school average but rank in the top third of their class. General equivalency diploma recipients who gained admission to senior college regular programs are also academically disadvantaged relative to the average senior college enrollee at The City University in that they have completed significantly less academic coursework.



point average, measured at the end of each semester considered, is used as our measure of academic success. Grade point averages were calculated by dividing the sum of quality points a student earned in their coursework by the total number of regular (i.e., non-remedial) college credits they attempted; quality points are numerical conversions of conventional letter grades.

We employ two measures of pre-college disadvantage. The first, high school academic average, \* was employed as our measure of pre-college educational disadvantage. Senior college students with high school averages below 80 and community college students with high school averages below 75 were placed in this category, in addition to students with general equivalency diplomas.

The second background measure, gross family income at time of entrance to The City University, was used to measure pre-college economic disadvantage. As with our pre-college academic measure, we dichotomized the economic measure, using the 1978 poverty line of \$7500 as our cut-off for coding students as economically disadvantaged. We then combined our two measures into an index of "disadvantage" (see Figure 1).



FIGURE 1: DISADVANTAGE CATEGORIES

Academic Background

Low High

Disadvantaged Economically disadvantaged

Background

High Educationally Advantaged

disadvantaged

Analyses were performed separately for senior and community colleges and for the total cohort. Tables are presented for the total cohort since we found only slight differences in results when analyzing the data by college level. These differences do not affect the conclusions.



#### RESULTS

Tables 1 and 2 present re-enrollment rates for the 1978 freshmen class over five consecutive semesters and broken down by level of disadvantage. In Table 1, the re-enrollment rates represent the percentage of the 1978 freshmen class who registered for the semester in question. Accordingly, the table shows a decline over time in the percent of students retained since the denominator for each retention calculation -- the total number of first-time freshmen enrolled in fall 1978 -- remains the same. By contrast, the semester re-enrollment rates presented in Table 2 reflect only those students in the 1978 freshmen class enrolled in the semester immediately prior to the one under examination. (Students who dropped out for one or more semesters and returned later -- stop outs -- are not included in our analysis.) To illustrate, in Table 2 the fall 1980 re-enrollment rate for disadvantaged students is 67 percent. This figure reflects the percentage of disadvantaged students enrolled in spring 1980 and who re-enrolled in fall 1980.

Compatible with the summer motivation thesis, Tables 1 and 2



Indeed, the spring 1979 enrollment rate for the most advantaged group is only 4 percentage points higher than for the least advantaged (89 percent versus 85 percent). By contrast, when we examine the fall 1979 retention rate for those enrolled the previous semester (see Table 2), we find that the retention rate for the most advantaged group is dramatically higher than for the least advantaged group (85 percent re-enrolled versus 71 percent). Moving forward to spring 1980, the disparity in retention between the most advantaged and most disadvantaged students is dramatically reduced (by eight percentage points), paralleling the pattern for the previous year. These subgroup patterns are repeated throughout the 1978 cohort's first five semesters at The City University and provide strong preliminary support for the summer motivation thesis.

Up until now, the discussion has been limited to comparison between the two extreme subgroups — the "advantaged" and the "disadvantaged." For the less extreme subgroups (the "economically disadvantaged" and "educationally disadvantaged"); the results are less clear-cut than expected since we found that only the "educationally disadvantaged" subgroup mirrored the



for the "disadvantaged" group (see Table 2). In other words, the re-enrollment patterns for these two groups are remarkably indeed, the retention patterns for the "educationally disadvantaged" and "disadvantaged" sub-groups remain alike in 1980 and 1981. By contrast, for the "economically disadvantaged" subgroup, we find that the semester by semester pattern is almost identical to that of the most advantaged group. For 1979, spring and fall re-enrollment rates for the "economically disadvantaged" subgroup are 90 percent and 82 percent, respectively, compared to 89 percent and 85 percent for the "advantaged" group (see Table 2). These patterns are also repeated in 1980 and 1981. addition to supporting the summer motivation thesis, the above findings underscore the importance of pre-college educational advantage as a predictor of college retention. In effect, academic preparation is a far more salient factor than poverty in explaining the attrition of college students.

What is the effect of summer school attendance on retention?
Tables 4 and 5 show that for all four subgroups, those who
attended summer school were more likely to re-enroll the
following fall than those not attending a summer program. For



more likely to re-enroll in fall 1980 than those who attended summer school only once. This effect is most pronounced for the "disadvantaged" group.

As another way of testing the summer thesis, we examined the correlation between college performance (as measured by cumulative grade point average) and retention by level of disadvantage. Recall that, according to the summer thesis, disadvantaged students who perform poorly in college are more likely to drop out than their counterparts among advantaged students, who despite bad grades, should remain committed to schooling because of their earlier exposure to more diverse learning experiences. As shown in Table 3, in all five semesters, the correlations between cumulative grade point average (GPA) and retention are stronger for disadvantaged than for advantaged students. Moreover, as hypothesized, between group differences in the strength of the correlation widehed over the summer. For example, for students enrolled continuously through fall 1979, the correlation between GPA and spring 1980 retention is .250 for the most advantaged and .275 for the least advantaged. By contrast, for students enrolled continuously





correlations between GPA and retention become weaker in each succeeding semester, the correlations for the most disadvantaged group become stronger after the summer and then weaken during the academic year only to become noticeably stronger again after the following summer.

Ë .

Of course, what appears as a summer school effect in the present study could actually be an artifact of not having controlled for background differences between those who enrolled in summer school and those who did not. Indeed, our data show that those who attend a summer session are better students (as measured by cumulative grade point average) than non-attenders and that better students are more likely to re-enroll. For example, 55 percent of 1979 summer school attenders are "good" students as opposed to only 35 percent of non-attenders.

Moreover, as Tables 7 and 8 document, regardless of level of disadvantage, students with a high GPA are more likely to re-enroll the following fall than those with a low GPA. For example, among the "disadvantaged" group who were enrolled in spring 1979, we find that 89 percent of those with high GPAs re-enrolled in fall 1979 as opposed to only 65 percent of those



find from Table 9 that 88 percent of those attending summer school re-enrolled in fall 1979 compared to only 59 percent of non-attenders; and the re-enrollment effect for those attending summer sessions holds for those with high GPAs as well.

According to the summer motivation perspective, the relationship between level of disadvantage and fall re-enrollment among summer school attenders should be analogous to the relationship between level of disadvantage and spring retention among students enrolled the previous fall. That is, among summer school attenders, differences between advantaged and disadvantaged students should be minimal. The data reported in Tables 4 and 5 support this expectation. Among 1979 summer school attenders, for example, the fall 1979 re-enrollment rate is 94 percent for the most advantaged students and 93 percent for the least advantaged (see Table 4). By contrast, among students not attending summer school that year, there is a substantial difference in the fall 1979 re-enrollment rate between the least and most advantaged ones (68 percent versus 82 percent).

As a final test of the summer thesis, we explored the



backgrounds would be expected to have the motivation to complete college regardless of their performance in school.

Alternatively, it could be argued that differences in retention between advantaged and disadvantaged students simply reflect differences in college performance. That is, students from disadvantaged backgrounds perform poorly in college and, in turn, students who do poorly, are more likely to drop out. According to this view, college performance functions as a consequence of pre-college advantage and as a cause of high re-enrollment rates. If college achievement functions as a intervening test factor, then holding it constant would cause the retention rate difference between advantaged and disadvantaged students to sharply decline or disappear. By contrast, the summer motivational thesis would predict that among low achievers, subgroup differences in the fall retention rate will persist, particularly among those who do not attend summer school while among high achievers, subgroup differences would be small. Tables 9 and 10 present retention rates in fall 1979 and fall 1980 by level of disadvantage after controls have been introduced for summer school status and cumulative grade point average.



least advantaged re-enrolled the following fall, while for low achievers who did attend summer school, the comparable figures are 91 percent and 88 percent, respectively. Among high achievers, on the other hand, differences between advantaged and disadvantaged students were minimal regardless of whether they attended summer school. These findings further support the summer thesis.



#### CONCLUSION

The results of these analyses strongly suggest that efforts at equalizing educational outcomes should focus on increasing the amount of time that disadvantaged students spend in school rather than simply through efforts at improving the quality of their school (as, for example, through improving the quality of remedial education). Commenting on the shift in his research after 1971, Christopher Jencks writes in his forward to the Heyns book:

the effects of school quality to the effects of quantitative differences in exposure to schooling. This shift in interest reflected the fact that our research consistently showed that while improving the school quality had little long-term impact on any tangible outcome, an extra year of schooling still raised men's occupational status and earnings, even after controlling family background and initial ability (xv).

One obvious reason why schooling affects economic success is that it reduces cognitive inequality between advantaged and disadvantaged groups. The research reported in this paper



Finally, the findings on the effect of summer school should alert us to the potential importance (especially for educationally disadvantaged students who are the least likely to attend summer school) that summer programs hold for enhancing educational opportunity. However, before restructuring CUNY's summer programs (e.g., by making them more attractive to students through economic inducements), we recommend that a longitudinal attitudinal survey study be conducted in order that we can rigorously control for possible motivational differences that may distinguish students who enroll in CUNY's summer programs from those that do not.



#### BIBLIOGRAPHY

- Barger, Ben and Hall, Everette 1964 "Personality Patterns and Achievement in College." Educational and Psychological Measurement 24: 339-346.
- Coleman, James S.

  1968
  "The Concept of Equality of Educational Opportunity." Harvard Educational Review 38 (winter): 7-22.
- Coleman, James S., et al.

  1966 Equality of Educational Opportunity: Washington;
  D.C.: U.S. Government Printing Office.
- 1981 A Review of Summer Learning and the Effects of Schooling by Barbara Heyns. Social Forces 59:
- Eckland, Bruce K.

  1980 A Review Essay of Summer Learning od the Effects
  of Schooling by Barbara Heyns. Contemporary
  Sociology 9: 799-802.
- 1978 Summer Learning and the Effects of Schooling. New York: Academic Press.
- Iffert, Pobert E.

  1957

  Pētention and Withdrawal of College Students.
  Wäshington, D.C.: Government Printing Office.
- Lenning, Oscar T.; Sauer, Ken, and Beal, Philip E. 1980 Student Retention Strategies: Washington D.C.



TABLE 1

FALL 1978 FIRST-TIME FULL-TIME FRESHMAN:
RETENTION OVER SIX SEMESTERS BY LEVEL OF DIS: LVANTAGE

Percent Retained by Semester Spring 1979 Fall 1979 Spring 1980 Fall 1980 Spring 1981 Level of N <u>N\_</u> Disadvantage % % <u>-</u>%\_ N % N 59.0 88.9 (5243) (5243) (5154) Advantaged 76.1 (5243) 71.3 61.4 (5057)Economically disadvantaged 89.8 (2740)74.3 (2740)70.2 (2740)59.5 (2698)55.7 (2649)Educationally disadvantaged 81.3 (5156)72.9 (5156)57:4 (5156)43.7 41.0 (5119)(5043)85.3 Disadvantaged (7940)62.3 (7940)56.8 (7940)40.0 (7920)37.4 (7872)

1.24

TABLE 2

FALL 1978 FIRST-TIME FULL-TIME FRESHMAN:
RETENTION OVER SIX SEMESTERS UP TO SEMESTER IN
WHICH RETENTION RATE IS CALCULATED BY LEVEL OF DISADVANTAGE

	Percent Retained by Semester										
Level of	<u>Spri</u> n	Spring 1979		Fall 1979		Spring 1980		Fall 1980		Spring 1981	
Disadvantage	<u>%</u>	Ň	<u>%</u>	N	<u>%</u>	N	%	N	<u>",</u>	<u>N</u> _	
Advantaged	88.9	(5243)	84.6	(4452)	91.7	(3629)	85.3	(3131)	94.4	(2448)	
Economically disadvantaged	89.8	(2740)	81.5	(2388)	92.2	(1887)	84.1	(1645)	92.0	(1279)	
Educationally disadvantaged	81.3	(5156)	75.7	(3909)	88.6	(2749)	73.4	(2259)	91.0	(1471)	
Disadvantaged	85.3	(7940)	71.2	(6566)	87.0	(4512)	67.4	(3779)	86.1	(2370)	

1.

TABLE 3

## CORRELATIONS OF CUMULATIVE GRADE POINT AVERAGE AND RETENTION OVER FIVE SEMESTERS FOR CONTINUOUS STUDENTS ENROLLED IN PREVIOUS SEMESTER

Level of	Spring 1979		Fall 1979		Sprin	Spring 1980		Fall 1980		Spring 1981	
<u>Disadvantage</u>	<u>r</u>	Ñ.	<u> </u>	N	r	Ň	r	Ň	<u>r</u>	Ň	
Advantaged	347	(5091)	:284	(4439)	.250	(3628)	.234	(3131)	.181	(2448)	
Economically disadvantaged	.379	(2646)	.370	(2378)	.267	(1886)	.305	(1644)	.323	(1279)	
Educationally disadvantaged	.377	(4849)	.328	(3884)	.271	(2749)	.442	(2259)	.203	(1471)	
Disadvantaged	.381	(7296)	.437	(6495)	.275	(4510)	.447	(3779)	.300	(2370)	

TABLE 4

FALL 1979 RETENTION RATE BY SUMMER PROGRAM STATUS AND LEVEL
OF DISADVANTAGE FOR CONTINUOUS STUDENTS ENROLLED THROUGH SPRING 1979

(Fall 1978 First-Time Full-Time Freshmen Only)

	Percent Retained Fall 1979								
Level of	Not Enrolle	d Summer 1979	Enrolled	Summēr 1979					
Disadvantage	_%	Ň	_%	_N_					
Advantaged	81.8	(3426)	94:1	(1026)					
Economically disadvantaged	77.5	(1878)	96.1	(510)					
Educationally disadvantaged	72.3	(3208)	91.0	(701)					
Disadvantaged	68.4	(5807)	92.6	(759)					

TABLE 5

FALL 1980 RETENTION RATE BY SUMMER PROGRAM STATUS AND LEVEL OF DISADVANTAGE FOR CONTINUOUS STUDENTS ENROLLED THROUGH SPRING 1980 (Fall 1978 First-Time Full-Time Freshmen Only)

	Percent Retained Fall 1980								
Lovel of	Not Enrolle	d Summer 1979	Enrolled	Summer 1979					
Disadvantage		N	_%						
Advantaged	81.5	(2111)	93.2	(1020)					
Economically disadvantaged	80.0	· (1177)	94.2	(468)					
Educationālly disadvantagēd	69.1	(1691)	86.1	(568)					
Disadvantāgēd	62.9	(3114)	88.0	(ēšĒ)					

TABLE 6

FALL 1980 RETENTION RATE BY NUMBER OF SUMMER
SESSIONS ATTENDED AND LEVEL OF DISADVANTAGE FOR
CONTINUOUS STUDENTS ENROLLED THROUGH SPRING 1980
(Fall 1978 First-Time Full-Time Freshmen Only)

	Percent Retained Fall 1980									
Level of	No S	ummers _	One	Summer	Two S	Two Summers				
Disadvantage		N		<u>N</u>	_%	N				
Advantaged	80.3	(1694)	90.5	(1028)	92.9	(409)				
Economically disadvantaged	79.3	(964)	87.0	(463)	95 <b>.</b> 0	(218)				
Educationally disadvantaged	69 <b>.</b> 3	(1410)	78.1	(607)	85. <b>6</b>	(242)				
Disadvantaged	62.6	(2764)	77.6	(773)	88.8	(242)				

TABLE 7

FALL 1979 RETENTION RATE BY CUMULATIVE GRADE POINT AVERAGE AND LEVEL OF DISADVANTAGE FOR CONTINUOUS STUDENTS ENROLLED THROUGH SPRING 1979 (Fall 1978 First-Time Full-Time Freshmen Only)

	Percent Retained Fall 1979								
izevel of	Low	GPA	Hig	h GPA					
Disadvantage	<u>%</u>	Ñ	_%_	N					
Advantaged	76.5	(1734)	90.1	(2705)					
Economically disadvantaged	71.1	(2584)	85.7	(1295)					
Educationally disadvantaged	72:5	(1141)	90.2	(1237)					
Disadvantaged	64:7	(4670)	89.1	(1825)					

TABLE 8

FALL 1980 RETENTION RATE BY CUMULATIVE GRADE POINT AVERAGE AND LEVEL OF DISADVANTAGE FOR CONTINUOUS STUDENTS ENROLLED THROUGH SPRING 1980 (Fall 1978 First-Time Full-Time Freshmen Only)

		Percent Retai	ned Fall 1979	
Level of	Low	GPA 1	Hig	h GPA
Disadvantage		N N	_%	N
Advantaged	78.5	(1191)	89.5	(1940)
Economically disadvantaged	65.2	(1532)	90.6	(727)
Educationally disadvantaged	74.1	(741)	92.4	(903)
Disadvantaged	$\bar{6}1;2$	<del>(</del> 2888)	87.3	(891)

TABLE 9

# FALL 1979 RETENTION RATE BY LEVEL OF DISADVANTAGE CONTROLLING FOR SUMMER. SCHOOL STATES AND CUMULATIVE GRADE POINT AVERAGE

Percent Retained Fall 1979

	No	ot Enrolled	Summer 19	979	Enrolled Summer 1979					
	Low	GPA	High GPA		Łow	GPA	High GPA			
Level of Disadvantage	<del>9</del> / <sub>2</sub>	Ň,	- %	N	%	N	<u>~</u>	<u> </u>		
Advantaged	66:7	(1093)	86.8	(2502)	91.1	(224)	94.6	(826)		
Economically disadvantaged	62.4	(768)	86.9	(1158)	92.0	(137)	97:4	(386)		
Educationally disadvantaged	63.2	(2016)	83.0	(1407)	86.0	(300)	94.5	(436)		
Disadvantagēd	58.6	(3829)	86.4	(2080)	87.8	(353)	96.0	(429)		

TABLE 10

## FALL 1980 RETENTION RATE BY LEVEL OF DISADVANTAGE CONTROLLING FOR SUMMER SCHOOL STATUS AND CUMULATIVE GRADE POINT AVERAGE

Percent Retained Fall 1980 Not Enrolled Summer 1980 Enrolled Summer 1980 Low GPA — High GPA Low GPA High GPA Level of Disadvantage N \_N\_ % Ņ 64.2 (676) Advantaged (1678)86.3 83:3 (234)95.4 (867)**Economically** disadvantaged 62.6 89.5 (792) / (489)88.7 95.0  $(11\bar{5})$ (380)Educationally (1192)disadvantaged 87.4 52.4 (825) 72.8 (276)(366)94.0 Disadvantaged 51.9 77.8 (2337)83.8 (1052)(329)95.2 (337)



TABLE 11

FALL 1980 RETENTION RATE BY NUMBER OF SUMMER SESSIONS ATTENDED AND LEVEL OF DISADVANTAGE CONTROLLING FOR CUMULATIVE GRADE POINT AVERAGE

					Perce	nt Retair	<u>ied Fall</u>	1980			<del>,</del>		
		Low C	umulativ	e Grade I	Point_	int -			Cumulati	ve Grade	Point	<u></u>	
Level of Disadvantage	No Summer		One Summer		Two Summers		No Summers		One Summer		Two Summers		•
	%	N	<b>%</b>	N	<del>%</del>	<u>_N</u> _		<u> </u>	<del>7</del>	N	, /a	N	•
Advantaged	62.9	(571)	78.8	(250)	82.0	(89)	85.6	(1331)	93:1	(860)	94.6	(354)	
Economically disadvantaged	62.9	(410)	73.8	(149)	88.9	(45)	88.7	(637)	94.0	(350)	95.1	(185)	3.4
Edcuationally disadvantaged	52.7	(1008)	61.8	(364)	72.9	(96)	88.2	(672)	91.1	(337)	90.7	(182)	
Disadvantaged	51.9	(2107)	65.t	(456)	76:7	(103)	83.5	(893)	90.6	(382)	96.1	(154)	